

**Oregon's Academic Content Standards (CIM) Correlated to Larson's Intermediate Math  
Grade 4**

Oregon's Academic Content Standards (CIM) 2005-2006		Larson's Intermediate Math		
Grade-Level Standards		Module	Topic	Grade
<b>I. Calculations and Estimations</b>				
<b>1. Numbers</b>				
<b>Understand numbers, ways of representing numbers, relationships among numbers, and number systems.</b>				
1.	Read, write, order, model, and compare whole numbers to one million, common fractions, and decimals to hundredths.	Place Value and Money	Whole Numbers	3
		Place Value and Money	Comparing and Ordering Whole Numbers	3
		Fraction and Number Concepts	Fractions and Fraction Models	3, 4
		Fraction and Number Concepts	Mixed Numbers and Improper Fractions	3, 4, 5, 6
		Fraction and Number Concepts	Comparing Fractions Using Models	3, 4
		Fraction and Number Concepts	Comparing Fractions	4
		Fraction and Number Concepts	Comparing and Ordering Fractions and Mixed Numbers	5, 6
		Decimals	Decimals Through Hundredths	3, 4
		Decimals	Comparing and Ordering Decimals Through Hundredths	3, 4
2.	Identify the place value and actual value of digits in a number to one million.	Place Value and Money	Whole Numbers	3
		Place Value and Money	Whole Numbers Through Billions	4, 5
3.	Locate common fractions and decimals on a number line.	Decimals	Rounding Decimals Through Hundredths	3, 4
4.	Model, recognize, and generate equivalent forms of decimals to hundredths.	Decimals	Decimals Through Hundredths	3, 4
		Decimals	Relating Fractions to Decimals	3, 4, 5, 6
		Decimals	Relating Mixed Numbers and Decimals	3, 4, 5, 6
5.	Determine factors of whole numbers to 100 using models such as arrays.	Dividing Whole Numbers	Divisibility Rules	5, 6
<b>2. Computation and Estimation</b>				
<b>Compute fluently and make reasonable estimates.</b>				
1.	Develop and evaluate strategies for multiplying and dividing whole numbers and adding and subtracting fractions with like denominators.	Multiplying Whole Numbers	All Topics	3, 4, 5
		Dividing Whole Numbers	All Topics	3, 4, 5, 6
		Adding Fractions	Adding Fractions Using Models	4
		Adding Fractions	Adding Fractions with Like Denominators	4, 5, 6

**Oregon's Academic Content Standards (CIM) Correlated to Larson's Intermediate Math  
Grade 4**

Oregon's Academic Content Standards (CIM) 2005-2006		Larson's Intermediate Math		
Grade-Level Standards		Module	Topic	Grade
(I.2.1. continued)		Adding Fractions	Adding Mixed Numbers with Like Denominators	4, 5, 6
		Subtracting Fractions	Subtracting Fractions Using Models	4
		Subtracting Fractions	Subtracting Fractions with Like Denominators	4, 5, 6
		Subtracting Fractions	Subtracting Mixed Numbers with Like Denominators	4, 5, 6
2.	Apply with fluency efficient strategies for determining multiplication and division facts 0-9.	Multiplying Whole Numbers	Multiplying by 0, 1, 2, 3, and 4	3, 4
		Multiplying Whole Numbers	Multiplying by 5 and 6	3, 4
		Multiplying Whole Numbers	Multiplying by 7 and 8	3, 4
		Multiplying Whole Numbers	Multiplying by 9 and 10	3, 4
		Dividing Whole Numbers	Dividing by 1 and 2	3, 4
		Dividing Whole Numbers	Dividing by 3 and 4	3, 4
		Dividing Whole Numbers	Dividing by 5 and 6	3, 4
		Dividing Whole Numbers	Dividing by 7 and 8	3, 4
		Dividing Whole Numbers	Dividing by 9 and 10	3, 4
3.	Multiply a three-digit number by a one-digit number.	Multiplying Whole Numbers	Multiplying by One-Digit Numbers	3, 4, 5
4.	Divide a three-digit number by a one-digit number with or without remainders.	Dividing Whole Numbers	Dividing by One-Digit Numbers	4, 5
		Dividing Whole Numbers	Understanding Remainders	4, 5
5.	Determine the meaning of whole number remainders in a problem situation.	Dividing Whole Numbers	Understanding Remainders	4, 5
6.	Add and subtract commonly used fractions with like denominators (halves, thirds, fourths, eighths, tenths) and decimals to hundredths.	Adding Fractions	Adding Fractions Using Models	4
		Adding Fractions	Adding Fractions with Like Denominators	4, 5, 6
		Adding Fractions	Adding Mixed Numbers with Like Denominators	4, 5, 6
		Subtracting Fractions	Subtracting Fractions Using Models	4
		Subtracting Fractions	Subtracting Fractions with Like Denominators	4, 5, 6
		Subtracting Fractions	Subtracting Mixed Numbers with Like Denominators	4, 5, 6

**Oregon's Academic Content Standards (CIM) Correlated to Larson's Intermediate Math  
Grade 4**

Oregon's Academic Content Standards (CIM) 2005-2006		Larson's Intermediate Math		
Grade-Level Standards		Module	Topic	Grade
(I.2.6. continued)		Adding and Subtracting Decimals	Adding Decimals Through Hundredths	4
		Adding and Subtracting Decimals	Adding Decimals (Adding Zeros)	4, 5
		Adding and Subtracting Decimals	Adding More Than Two Decimals	4, 5
		Adding and Subtracting Decimals	Subtracting Decimals Through Hundredths	4
		Adding and Subtracting Decimals	Subtracting Decimals (Regrouping)	4, 5
7.	Add and subtract decimals to hundredths, including money amounts.	Place Value and Money	Counting Money	3, 4, 5
		Place Value and Money	Making Change	3, 4, 5
		Adding and Subtracting Decimals	Adding Decimals Through Hundredths	4
		Adding and Subtracting Decimals	Adding Decimals (Adding Zeros)	4, 5
		Adding and Subtracting Decimals	Adding More Than Two Decimals	4, 5
		Adding and Subtracting Decimals	Subtracting Decimals Through Hundredths	4
		Adding and Subtracting Decimals	Subtracting Decimals (Regrouping)	4, 5
8.	Mentally multiply or divide multiples of 10 (e.g., $40 \times 70$ or $2700/30$ ).	Covered in many topics of Larson's Intermediate Math, including Mental Math and Estimation.		
9.	Identify the most efficient operation (add, subtract, multiply, or divide) for solving a problem.	Covered in many topics of Larson's Intermediate Math.		
10.	Select and use an appropriate estimation strategy (overestimate, underestimate, range of estimates) based on the problem situation when computing with whole numbers or money amounts.	Covered in many topics of Larson's Intermediate Math, including Mental Math and Estimation.		
11.	Use place value concepts such as rounding to nearest 10, 100, and 1000 to estimate and check reasonableness of answers.	Place Value and Money	Rounding Whole Numbers	3
		Place Value and Money	Rounding Whole Numbers Through Millions	4, 5
		Also covered in many other topics of Larson's Intermediate Math, including Mental Math and Estimation.		

**Oregon's Academic Content Standards (CIM) Correlated to Larson's Intermediate Math  
Grade 4**

Oregon's Academic Content Standards (CIM) 2005-2006		Larson's Intermediate Math		
Grade-Level Standards		Module	Topic	Grade
<b>3. Operations and Properties</b>				
<b>Understand meanings of operations and how they relate to one another.</b>				
1.	Demonstrate the meaning of fractions as part of a unit whole or as parts of a collection or set.	Fraction and Number Concepts	Fractions and Fraction Models	3, 4
2.	Use inverse operations (addition and subtraction, multiplication, and division) to solve problems and check solutions involving calculations with whole numbers.	Subtracting Whole Numbers	Addition and Subtraction Fact Families	3, 4
		Subtracting Whole Numbers	Subtracting Three-Digit Numbers	3, 4, 5
		Dividing Whole Numbers	Dividing by 5 and 6	3, 4
		Dividing Whole Numbers	Dividing by 7 and 8	3, 4
		Dividing Whole Numbers	Dividing by One-Digit Numbers	4, 5
		Adding and Subtracting Decimals	Subtracting Decimals (Regrouping)	4, 5
		Dividing Decimals	Finding Decimal Quotients	5
3.	Apply the commutative, associative, and identity properties of addition and multiplication and the distributive property to simplify calculations with whole numbers.	Adding Whole Numbers	Properties of Addition	5
		Multiplying Whole Numbers	Multiplying by 0, 1, 2, 3 and 4	3, 4
		Multiplying Whole Numbers	Multiplying Three Factors	5
		Multiplying Whole Numbers	Understanding the Distributive Property	5
<b>II. Statistics and Probability</b>				
<b>1. Statistics</b>				
<b>Select and use appropriate statistical methods to analyze data.</b>				
1.	Determine the median for a set of data and understand what each statistic does and does not indicate about the data.	Statistics and Probability	Mean, Median, Mode and Range	4, 5, 6
<b>2. Probability</b>				
<b>Understand and apply basic concepts of probability.</b>				
1.	Determine probability of a single event.	Statistics and Probability	Probability	3, 4, 5
		Statistics and Probability	Probability of Simple Events	5, 6
		Statistics and Probability	Experimental Probability	5, 6
2.	Understand that the probability of an event can be represented by a number from 0 (impossible) to 1 (certain).	Statistics and Probability	Probability	3, 4, 5
		Statistics and Probability	Probability of Simple Events	5, 6

## Oregon's Academic Content Standards (CIM) Correlated to Larson's Intermediate Math Grade 4

Oregon's Academic Content Standards (CIM) 2005-2006		Larson's Intermediate Math		
Grade-Level Standards		Module	Topic	Grade
<b>3. Collect and Display Data</b>				
<b>Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.</b>				
1.	Conduct experiments and simulations to determine experimental probability of different outcomes.	Statistics and Probability	Experimental Probability	5, 6
2.	Represent and interpret data collected from probability experiments and simulations using tallies, charts, pictograms, and bar graphs, including determining probabilities of single events.	Statistics and Probability	Collecting and Organizing Data	3, 4, 5, 6
		Statistics and Probability	Bar Graphs	3, 4
		Statistics and Probability	Pictographs	3, 4, 5, 6
		Statistics and Probability	Probability	3, 4, 5
		Statistics and Probability	Probability of Simple Events	5, 6
		Statistics and Probability	Experimental Probability	5, 6
<b>4. Data Analysis and Predictions</b>				
<b>Develop and evaluate inferences and predictions that are based on data.</b>				
1.	Predict the degree of likelihood of a single event occurring using words such as certain, impossible, most often, least often, likely, and unlikely.	Statistics and Probability	Probability	3, 4, 5
2.	Predict the likelihood of an outcome prior to an experiment and compare predicted probability with the actual results.	Statistics and Probability	Probability	3, 4, 5
		Statistics and Probability	Probability of Simple Events	5, 6
		Statistics and Probability	Experimental Probability	5, 6
<b>III. Algebraic Relationships</b>				
<b>1. Patterns and Functions</b>				
<b>Understand patterns, relations, and functions.</b>				
1.	Describe, extend and make generalizations about patterns and sequences and supply missing elements in chart or table format	Subtracting Whole Numbers	Addition and Subtraction Fact Families	3, 4
		Multiplying Whole Numbers	Multiplying by 0, 1, 2, 3, and 4	3, 4
		Multiplying Whole Numbers	Multiplying by 5 and 6	3, 4
		Multiplying Whole Numbers	Multiplying by 7 and 8	3, 4
		Multiplying Whole Numbers	Multiplying by 9 and 10	3, 4
		Dividing Whole Numbers	Dividing by 1 and 2	3, 4
		Dividing Whole Numbers	Dividing by 3 and 4	3, 4
		Dividing Whole Numbers	Dividing by 5 and 6	3, 4
		Dividing Whole Numbers	Dividing by 7 and 8	3, 4
		Dividing Whole Numbers	Dividing by 9 and 10	3, 4
		Also covered in the Commander Problems titled Finding a Pattern, Using a Pattern, Complete the Sequence, and Larson's Sliding GeoBeads.		

**Oregon's Academic Content Standards (CIM) Correlated to Larson's Intermediate Math  
Grade 4**

Oregon's Academic Content Standards (CIM) 2005-2006		Larson's Intermediate Math		
Grade-Level Standards		Module	Topic	Grade
2.	Supply a missing element in or determine a rule that extends number patterns involving addition or subtraction of decimals.	Adding and Subtracting Decimals	All Topics	4, 5, 6
		Also covered in the Commander Problems titled Finding a Pattern, Using a Pattern, and Complete the Sequence.		
<b>2. Algebraic Relationships</b>				
<b>Represent and analyze mathematical situations and structures using algebraic symbols.</b>				
1.	Select operational and relational symbols to make a number sentence true (e.g., $4 - 3 = 12$ , $5 + 17 = 25$ ).	Covered in many topics of Larson's Intermediate Math.		
2.	Represent and solve open sentences or problems involving numeric equations or inequalities (e.g., $3 + ? = 4$ ; $2 + 1 > ?$ , $4 < 2 + ?$ ).	Covered in many topics of Larson's Intermediate Math.		
3.	Translate between different representations (words, numeric, pictorial) of a simple quantitative relationship (e.g., match a table of values to its rule).	Covered in many topics of Larson's Intermediate Math.		
<b>IV. Measurement</b>				
<b>1. Units and Tools</b>				
<b>Understand measurable attributes of objects and the units, systems, and processes of measurement.</b>				
1.	Select the most appropriate tool and U.S. customary unit to measure length, perimeter, weight, and volume.	Customary Units of Measure	Measuring Length	3, 4
		Customary Units of Measure	Measuring Capacity	3, 4
		Customary Units of Measure	Measuring Weight	3, 4
		Customary Units of Measure	Choosing Appropriate Units of Measure	3, 4
		Basic Geometry	Perimeter	3, 4
		Advanced Geometry	Volume of a Rectangular Prism	5, 6
2.	Carry out simple unit conversions within the U.S. customary system (e.g., inches to feet, ounces to pounds).	Customary Units of Measure	Measuring Length	3, 4
		Customary Units of Measure	Measuring Capacity	3, 4
		Customary Units of Measure	Measuring Weight	3, 4
<b>2. Direct and Indirect Measurement</b>				
<b>Apply appropriate techniques, tools, and formulas to determine measurements.</b>				
1.	Determine elapsed time requiring unit conversions (e.g., weeks to months, minutes to hours).	Time	Finding Elapsed Time	3, 4
		Time	Finding Elapsed Time Using Calendars	3, 4
2.	Read temperature measurements of thermometers with Fahrenheit and Celsius units and recognize reasonable ranges of temperatures for different events (e.g., cold or hot day).	Customary Units of Measure	Measuring Temperature	3, 4
		Metric Units of Measure	Measuring Temperature	3, 4

**Oregon's Academic Content Standards (CIM) Correlated to Larson's Intermediate Math  
Grade 4**

Oregon's Academic Content Standards (CIM) 2005-2006		Larson's Intermediate Math		
Grade-Level Standards		Module	Topic	Grade
3.	Determine measurements of length and perimeter to the nearest inch and nearest foot.	Customary Units of Measure	Measuring Length	3, 4
		Basic Geometry	Perimeter	3, 4, 6
4.	Estimate the length of objects in inches, feet, and yards.	Customary Units of Measure	Choosing Appropriate Units of Measure	3, 4
5.	Determine measurements of volume to the nearest 1/4 cup, quart, or gallon of measuring cups, beakers, or graduated cylinders.	Customary Units of Measure	Measuring Capacity	3, 4
6.	Estimate the volume of objects in cups, quarts, and gallons.	Customary Units of Measure	Choosing Appropriate Units of Measure	3, 4
7.	Determine measurements of weight to the nearest ounce and pound.	Customary Units of Measure	Measuring Weight	3, 4
8.	Estimate the weight of objects in ounces and pounds.	Customary Units of Measure	Choosing Appropriate Units of Measure	3, 4
9.	Relate the area of a rectangle and its dimensions to area models for multiplication and division.	Basic Geometry	Area	3, 4
		Advanced Geometry	Perimeter and Area of a Rectangle	4, 5, 6
10.	Determine perimeter and area of rectangles given lengths of sides.	Basic Geometry	Area	3, 4
		Basic Geometry	Perimeter	3, 4, 6
		Advanced Geometry	Perimeter and Area of a Rectangle	4, 5, 6
11.	Estimate and measure the area of a rectangular surface using unit squares.	Basic Geometry	Area	
12.	Use referents for US customary measurements to make estimates of length, weight, and volume and evaluate the reasonableness of the estimate (e.g., length of one floor tile and estimate length of classroom).	Customary Units of Measure	Choosing Appropriate Units of Measure	3, 4
<b>V. Geometry</b>				
<b>1. Properties and Relationships</b>				
<b>Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.</b>				
1.	Identify, describe, compare, and classify quadrilaterals by their sides and angles.	Basic Geometry	Classifying Quadrilaterals	5, 6
2.	Identify right, acute, and obtuse angles in isolation and in geometric figures.	Basic Geometry	Classifying Triangles	5, 6
		Advanced Geometry	Classifying Angles	3, 4, 5, 6
3.	Use properties of quadrilaterals to determine the lengths of their sides and perimeters.	Basic Geometry	Classifying Quadrilaterals	5, 6
		Advanced Geometry	Perimeter and Area of a Rectangle	4, 5, 6
4.	Develop, understand, and apply the property of the sum of the angle measures in a quadrilateral is 360 degrees.	Basic Geometry	Classifying Quadrilaterals	5, 6

**Oregon's Academic Content Standards (CIM) Correlated to Larson's Intermediate Math  
Grade 4**

Oregon's Academic Content Standards (CIM) 2005-2006		Larson's Intermediate Math		
Grade-Level Standards		Module	Topic	Grade
5.	Identify congruent quadrilaterals using concrete methods.	Advanced Geometry	Congruency	3, 4, 5
6.	Draw conclusions about the measures of corresponding sides and angles of two congruent quadrilaterals.	Basic Geometry	Classifying Quadrilaterals	5, 6
		Advanced Geometry	Congruency	3, 4, 5
<b>2. Modeling</b>				
<b>Use visualization, spatial reasoning, and geometric modeling to solve problems.</b>				
1.	Model, sketch, draw, and label points, lines, line segments, angles, rays, quadrilaterals, and parallel, perpendicular, and intersecting lines.	Basic Geometry	Classifying Quadrilaterals	5, 6
		Advanced Geometry	Points, Lines, Segments, and Rays	3, 4, 5, 6
		Advanced Geometry	Classifying Angles	3, 4, 5, 6
		Advanced Geometry	Parallel, Perpendicular, and Intersecting Lines	4, 5, 6
		Also covered in the Commander Problems titled Model It and Using a Model.		
2.	Build three-dimensional objects and sketch two-dimensional representations of the object.	Basic Geometry	Classifying Solids	3, 4, 5
		Also covered in the Commander Problems titled Model It and Using a Model.		
<b>3. Coordinate Geometry</b>				
<b>Specify locations and describe spatial relationships using coordinate geometry and other representational systems</b>				
1.	Locate coordinates of points on graph paper, maps, globes, and other charts.	Statistics and Probability	Graphing Ordered Pairs	3, 4, 5
2.	Determine the shortest path of horizontal and vertical movement between two locations grid.			
<b>4. Transformations and Symmetry</b>				
<b>Apply transformations and use symmetry to analyze mathematical situations.</b>				
1.	Predict and describe the results of performing reflections, rotations and translations of quadrilaterals.	Basic Geometry	Slides, Flips, and Turns	3, 4, 5, 6
2.	Identify and describe a motion or series of motions that will show two quadrilaterals are congruent.	Basic Geometry	Slides, Flips, and Turns	3, 4, 5, 6
		Advanced Geometry	Congruency	3, 4, 5
<b>VI. Mathematical Problem Solving</b>				
<b>1. Conceptual Understanding</b>				
<b>Select, apply, and translate among mathematical representations to solve problems.</b>				
1.	Interpret the concepts of a problem-solving task and translate them into mathematics.	Covered in many topics of Larson's Intermediate Math.		

**Oregon's Academic Content Standards (CIM) Correlated to Larson's Intermediate Math  
Grade 4**

Oregon's Academic Content Standards (CIM) 2005-2006		Larson's Intermediate Math		
Grade-Level Standards		Module	Topic	Grade
<b>2. Processes and Strategies</b>				
<b>Apply and adapt a variety of appropriate strategies to solve problems.</b>				
1.	Choose strategies that can work and then carry out the strategies chosen.	Covered in many topics of Larson's Intermediate Math including Mental Math, Estimation, Use a Calculator, Reasoning, Model It, and Using Models.		
<b>3. Verification</b>				
<b>Monitor and reflect on the process of mathematical problem solving.</b>				
1.	Produce identifiable evidence of a second look at the concepts/strategies/calculations to defend a solution.	Covered in many topics of Larson's Intermediate Math.		
<b>4. Communication</b>				
<b>Communicate mathematical thinking coherently and clearly; Use the language of mathematics to express mathematical ideas precisely.</b>				
1.	Use pictures, symbols, and/or vocabulary to convey the path to the identified solution.	Covered in many topics of Larson's Intermediate Math.		
<b>5. Accuracy</b>				
<b>Accurately solve problems that arise in mathematics and other contexts.</b>				
1.	Accurately solve problems using mathematics.	Covered in all topics of Larson's Intermediate Math.		